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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,763	10/09/2001	Horst Pillhoffer	10537/119	9751

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EXAMINER
MEEKS, TIMOTHY HOWARD

ART UNIT	PAPER NUMBER
1762	8

DATE MAILED: 06/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/857,763	PILLHOFFER ET AL.	
	Examiner	Art Unit	
	Timothy H. Meeks	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Application Status

The amendment filed on 08 May 2003 in response to the Office Action mailed on 13 February 2003 has been fully considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 8-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Strasser et al. (5,215,785) in view of Hayman et al. (4,156,042).

Strasser discloses a method for coating a hollow body comprising contacting the inner surfaces of the hollow body with a powder mixture containing 80 parts alumina filler with a particle size of 150 microns, 40 parts of a metal donor and activator, AlTi, and NH_4F, respectively being exemplified, the donor and activator being in the form of spherical particles with an average size smaller than 150 microns (col. 3, line 60 to col. 4, line 7). It is noted that the filler and donor of Strasser includes the situation where the filler and donor have approximately the same average particle size since "less than 150 microns" includes values that are "approximately equal to" 150 microns. The AlTi donor contains 50% by weight Al.

Strasser does not disclose a metal halide activator such as a metal halide of the donor metal. However, because Hayman discloses at col. 4, lines 5-22 that AlF_3 is a particularly

effective activator for aluminizing by pack cementation in obtaining uniform coatings, it would have been obvious to use this activator to achieve these advantages.

The range of amounts of donor and activator disclosed by Strasser overlaps the claimed ranges. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see In re Malagari, 182 USPQ 549.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strasser in view of Hayman as applied above, and further in view of Warnes et al. (5,989,733).

Use of AlCr donor is not disclosed. However, because Warnes discloses at col. 5, lines 3-13 that such donor is effective for aluminizing by pack cementation, it would have been obvious to use this aluminum donor powder with a reasonable expectation of its being effective for providing the aluminized coating required by Strasser.

Response to Arguments

Applicants' arguments filed on 08 May 2003 have been fully considered but are not deemed persuasive.

Applicants argue that Strasser discloses a percentage of filler powder and activator of 33 wt% based upon the disclosure of 40 parts filler and activator (applicants appear to have substituted the word filler in their arguments for the word donor). The teaching at col. 3, lines 60-68 is that the mixture comprises 80 parts alumina filler powder and 40 parts donator and activator powder materials. While the examiner agrees that one could literally interpret that

teaching that there exists 40 parts together of the donor and activator, as applicants appear to have done, it is believed that one of ordinary skill in the art viewing the teachings of Strasser would interpret the teaching to mean that the mixture contains 80 parts filler, 40 parts donor, and 40 parts activator. This is because the activator is designed to react one to one with the donator to form the metal halide in gas phase upon heating which would require equal amounts of donator to activator. Hence it is believed that one would interpret that phrase to mean that there is 40 parts donator and 40 parts activator. This translates to a mixture having 25 wt% donator which falls in the claimed range. At a minimum using applicants' interpretation that there are 40 parts total of donator and activator, and using the valid assumption that equal amounts of donator and activator are needed to react one to one to produce the metal halide, this would translate to a mixture having about 16 wt% donator which also is within the claimed range. Therefore, Strasser clearly discloses to use amounts of donator in the mixture within the claimed range. Even if one did not assume a one-to-one ratio of the donor to activator, the ranges of amounts of donator and activator encompassed by having 40 parts total of the two would clearly overlap the claimed ranges of amounts of these components and using amounts in the portion of the range falling within the claimed range would have been obvious with a reasonable expectation of their being operable, absent evidence showing a criticality for using the claimed amounts.

Applicants argue that the combination of Strasser and Hayman has been made with impermissible hindsight. The examiner respectfully disagrees. As set forth previously, Strasser teaches the claimed process with the exception that they use an ammonium halide activator rather than a metal halide activator as claimed. However, Hayman clearly discloses that by using and aluminum fluoride activator when performing an aluminizing treatment, as Strasser seeks to

perform, that the coating has satisfactory uniformity and as such this activator is preferred over other possible activators. The prior art provides clear motivation to use an aluminum fluoride activator.

Applicants argue that it would not have been obvious to select the claimed particle sizes to be about the same in view of Strasser because applicants have shown an unexpected result from using this size. It is noted that the endpoints of the particles sizes for the filler and donor are about the same which is anticipatory of this limitation. Furthermore, applicants have pointed to statements in the specification with respect to improved flowability but have provided no evidence commensurate in scope with the claims that using the claimed sizes produces this benefit compared to other values that may fall in the prior art. There is no comparison to the closest prior art. It is further noted that Strasser discloses a requirement to have a "flowable" mixture as disclosed at col. 2, lines 10-20.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy H. Meeks whose telephone number is (703) 308-3816. The examiner can normally be reached on Mon., Tues., Thurs.(6-6:30), Fri.(6:30-10:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Timothy H. Meeks
Primary Examiner
Art Unit 1762

June 9, 2003